



University of Groningen

Social contexts and personal relationships

Mollenhorst, Gerald; Völker, Beate; Flap, Henk

Published in:
Social Networks

DOI:
[10.1016/j.socnet.2007.07.003](https://doi.org/10.1016/j.socnet.2007.07.003)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2008

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Mollenhorst, G., Völker, B., & Flap, H. (2008). Social contexts and personal relationships: The effect of meeting opportunities on similarity for relationships of different strength. *Social Networks*, 30, 60.
<https://doi.org/10.1016/j.socnet.2007.07.003>

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Social contexts and personal relationships: The effect of meeting opportunities on similarity for relationships of different strength[☆]

Gerald Mollenhorst^{*}, Beate Völker, Henk Flap

ICS/Department of Sociology, Utrecht University, Utrecht, The Netherlands

Abstract

This paper examines the effect of social contexts on similarity in personal relationships. We argue that the effect of social contexts is larger for weaker, and smaller for stronger relationships. Using data from *The Survey of the Social Networks of the Dutch* (collected in 1999/2000, $n = 1007$), we first describe where people got to know their acquaintances, friends and partner and that similarity in these relationships with regard to age, level of education, sex, and religion, generally varies. We then inquire whether getting to know each other in a certain context affects similarity, and whether this effect is different for relationships of different strength. Our main conclusion, however, is that the effect of social contexts on similarity is remarkably consistent across partnerships, friendships, and acquaintanceships.

© 2007 Elsevier B.V. All rights reserved.

Keywords: Personal relationships; Social contexts; Meeting opportunities; Similarity

1. Introduction: social contexts and similarity in personal relationships

Within sociology, it is widely acknowledged that the social composition of the social contexts people enter in their daily life – providing the ‘pool’ of available others – plays a substantial role for the composition of their resulting personal networks (cf. amongst others, Blau, 1977; Verbrugge, 1977; Feld, 1981; Feld and Carter, 1998; Fischer, 1982; Huckfeldt, 1983; McPherson and Smith-Lovin, 1987; Völker and Flap, 1997; Kalmijn, 1998). For many activities, people select associates who are immediately available for interaction in some context in which they spend their time. In particular, it has been shown that the degree of similarity of interaction partners with regard to socio-demographic characteristics, is influenced by the type of social context in which they meet or got to know each other, e.g., via family, in the neighborhood, at work or a voluntary association

(see Marsden, 1990; Kalmijn and Flap, 2001; Mollenhorst et al., in press). These studies provide a strong case for the importance of opportunities (or ‘supply’), next to preferences (or ‘demand’) for certain types of interaction partners. Although preferences cannot be denied in the process of network member selection, the opportunities to realize these preferences are determined by the social composition of the contexts which one enters or has entered formerly.

So far, the argument that the social composition of the contexts in which people meet affects the resulting personal network has generally been made for all types of network members, without taking into account that preferences for certain others might count differently for different types of relationships. For some types of relationships one would not accept deviation from one’s preferences, while for other relationships preferences are of less importance or not even specified very clearly.

In most literature, it is assumed that people prefer others who are similar to themselves on important social dimensions. Similarity, e.g., with regard to age, education, or lifestyle, lowers the costs of transactions and enhances mutual understanding and trust (see, e.g., Homans, 1950; Laumann, 1966). Yet, the preferences for similarity might not be of equal importance in all types of interactions. For example, the preference for a similar educated marriage partner might be very salient and important for that type of relation, yet for a casual chat or for occasional companionship, it might be quite inspiring and interesting to have a person available in the network, who differs in that respect. Our main idea is that, if one is looking for a strong relation-

[☆] The authors are grateful to two anonymous *Social Networks* reviewers and several colleagues within the Interuniversity Center for Social Science Theory and Methodology (ICS) for helpful comments. This study is part of the research program “Where Friends Are Made: Contexts, Contacts, Consequences”, which is supported by a Netherlands Organisation for Scientific Research (NWO) grant to Beate Völker as principal investigator. An earlier version of this paper was presented at the 26th International Sunbelt Social Network Conference in Vancouver, BC, April 2006.

^{*} Corresponding author at: ICS/Department of Sociology, Utrecht University, P.O. Box 80.140, 3508 TC Utrecht, The Netherlands.

E-mail address: g.w.mollenhorst@uu.nl (G. Mollenhorst).

ship, e.g., a marriage partner, the characteristics of that person are much more important as compared to if one is looking for a friend or an acquaintance. Furthermore, when looking for a strong relationship one will not be inclined to accept the first opportunities provided by a given meeting context, but one will also look in other social contexts. When looking for a weaker relationship, e.g., a friend for social companionship, however, it does not matter that much if the person does not match one's preferences on all social dimensions. Hence, one will be more inclined to accept a person as a friend or an acquaintance, when met at a certain occasion in a given social context.

This idea implies that the strength of the effect of a social context on the resulting relationship is different for various types of relationships, specifically for relationships of different strengths. Although there is ample evidence demonstrating the general importance of social contexts for personal networks, it has never been attempted to inquire into the differential effect of social contexts on various types of social relationships. So, the purpose of this paper is to examine the extent to which the effect of social contexts on similarity in personal relationships differs for partnerships, friendships and acquaintanceships. We expect that the effect of social contexts is stronger for weaker relationships and weaker for stronger ones, because preferences weigh less heavily in choosing with whom to have a casual talk than in the choice of someone with whom to share important personal matters.

We have two reasons to focus on partners, friends, and acquaintances. First, these types of relationships can all start in a variety of social contexts, whereas less variation can be expected in the contexts in which, for example, relatives, colleagues and neighbors get to know each other. In general, relatives get to know each other at home (the respondent's or the relative's) or at another relative's place; colleagues get to know each other at work, and neighbors in the neighborhood. More variation is expected with regard to partnerships, friendships and acquaintanceships. A second reason for focusing on these three types of personal relationships is their range in strength. Partnerships are in general stronger relationships than friendships, and friendships are stronger than acquaintanceships. Assuming that preferences weigh more heavily in the choice of stronger relationships than in the choice of with whom to have a casual chat, we expect the effect of the composition of the social context where pairs get to know each other to be weaker for intimate personal relationships (partnerships) than for casual relationships (acquaintanceships).

The effect of the social composition of the meeting context on similarity in personal relationships could be in two opposite directions. If one wants to meet a similar person, and the context is full of similar others, the context will have a positive (or stimulating) effect on similarity in the relationship. For example, since people are structurally inscribed in schools according to their age, schools are full of others of the same age, making associations with similar others in that respect easy. And due to a generally strong correlation between level of education and occupation, work places are likely to provide potential network members with the same level of education. The opposite applies if the context is full of dissimilar others: the context then has a

negative (or constraining) effect on similarity. Extended families, for example, consist of multiple generations, which makes association with similar others with respect to age less likely. Irrespective of whether the effect of social context on similarity is positive or negative, depending on the social composition of the context, we expect the effect of meeting context to be larger, the weaker the type of relationship. As already argued, this is because weaker preferences leave more room for the effect of the social composition of the context.

Thus, the general hypothesis for this study reads as follows:

The stimulating or constraining effect of social context on similarity in personal relationships is larger for friendships than for partnerships and larger for acquaintanceships than for friendships.

2. Previous research

Sociological research on the emergence of personal networks has increasingly paid attention to people's meeting opportunities. Earlier studies focused on individuals' preference for certain types of associates (e.g., Lazarsfeld and Merton, 1954; Newcomb, 1961; Laumann, 1966; Duck, 1991). More recent studies, however, follow Blau's 'opportunities for contact' argument (Blau, 1977), according to which individual preferences are insufficient for explaining the composition of personal networks. It turns out that with whom one socializes and works, fools around and even marries is not wholly a personal decision. Whether people succeed in associating with the type of others they prefer depends on their opportunities to meet these others. This opportunity structure for meeting specific others is determined by the socio-demographic composition of the contexts in which people live, work and 'hang out'.

As mentioned above, the supply-side perspective has already been applied to several kinds of personal relationships; for example, friendships (Verbrugge, 1977; McPherson and Smith-Lovin, 1987), core discussion network relationships (Marsden, 1990; Mollenhorst et al., *in press*), marital relationships (Blau and Schwartz, 1984; Kalmijn, 1998; Kalmijn and Flap, 2001), sexual relationships (Laumann et al., 1994), relationships with colleagues (Flap et al., 1998) and relationships with neighbors (Huckfeldt, 1983; Völker and Flap, 1997). Other important applications of the supply-side perspective are, for example, Fischer et al. (1977), Blau et al. (1982) and Kalmijn (2002). However, the effects of meeting contexts on different types of relationships have not yet been studied in a comparative way, as we aim to do in this paper.

In a nutshell, our perspective is that supply-side and demand-side arguments on the emergence of relationships provide complementary insights into the way personal relationships are formed. Social contexts, like meeting places and institutional arrangements, delimit 'the pool' from which people can choose their friends, a partner, and acquaintances. Individual preferences subsequently determine how people choose these associates out of the given pool.

The remainder of this paper is organized as follows: in the next section, we present our data and describe our measurements

and analyses performed, section four describes the results of our analyses, and we finish with a discussion of these findings and our conclusions.

3. Methods

3.1. The sample

In order to learn where people got to know their partner, friends and acquaintances, and to discern the extent to which the effect of social contexts on similarity in personal relationships varies among these three types of personal relationships, we used data from the first wave of *The Survey of the Social Networks of the Dutch* (SSND1) (Völker and Flap, 2002). This dataset, which was collected in 1999/2000, contains information on 1007 individuals in the Netherlands and is representative of the Dutch adult population between the ages of 18 and 65. To collect the data, a stratified random sample was drawn consisting of forty municipalities representing the various Dutch provinces and regions. In addition, the degree of urbanization and the number of residents of these municipalities was taken into account. In each of the forty municipalities, four neighborhoods were randomly selected using the Dutch zip-code system. Next, per neighborhood, 25 addresses were randomly selected. At eight of these addresses, one person was interviewed. This was the resident between 18 and 65 years of age who was to have her or his birthday first. In the end, with a response rate of 40%, which is common for survey research in the Netherlands nowadays, a dataset of 1007 respondents from 161 neighborhoods was realized.

Comparing these SSND1 data with national statistics on basic socio-demographic features, we found that men, married people and the somewhat higher educated were a bit over-represented. In addition, people with a paid job were over-sampled. We nonetheless used the data on all 1007 respondents for two reasons: (i) Van der Gaag (2005) showed that various network characteristics hardly changed when using a weighted instead of an unweighted sample; and (ii) in our final analyses we control for sex, marital status, level of education and having a paid job.

3.2. Measurements

3.2.1. Dependent variables

The personal networks of the respondents were delineated through so-called ‘name-generating questions’, 13 in total, which are presented in Appendix A.

Having collected the names (initials) of a respondent’s personal contacts, additional questions (the ‘name-interpreters’) were asked about the contacts themselves, as well as about the relationship between ego and alter. Similarity between ego and alter with regard to sex was measured straightforwardly, using a dummy-coded variable. Religious similarity is also measured by a dummy-coded variable, using variables on religion with four categories: ‘no religion’, ‘catholic’, ‘protestant’, and ‘other religion’. Respondents are considered religious if they reported going to church at least once per year, while network

members are considered religious if the respondent concerned indicated that the alter had a certain religion. Age similarity and educational similarity were measured, respectively, as the negative absolute difference¹ in age and level of education between ego and alter.² Educational similarity is determined using variables on the highest level of education completed, with four categories: ‘primary education to lower vocational education’, ‘(lower) general secondary education to pre-university education’, ‘intermediate vocational education to higher vocational training’, and ‘university degree’.

3.2.2. Independent variables

Type of relationship between ego and alter was determined by the answer to the question, ‘How are you connected to this person?’ Respondents could choose a maximum of three out of the following categories: ‘partner’, ‘parent’, ‘child’, ‘parent-in-law’, ‘brother/sister’, ‘other relative’, ‘friend’, ‘boss’, ‘direct colleague’, ‘other colleague’, ‘someone who works for you’, ‘someone from your neighborhood’, ‘direct neighbor’, ‘someone who is a member of the same club or association’ and ‘acquaintance’.

To determine the social context in which ego and alter got to know each other, respondents were asked for every person mentioned: ‘Where, on which occasion, did you get to know this person?’ They could choose one out of the following contexts: ‘at school’, ‘at a club or association’, ‘at work’, ‘via family’, ‘via friends’, ‘at my place’, ‘at their place’, ‘in the neighborhood’, ‘at a going-out place’, ‘at church’, ‘on a vacation’, ‘at a party’ and ‘somewhere else’. Obviously, the effect of the social composition of context on the social composition of personal networks can best be determined if the actual social composition of the contexts were measured as well, instead of making assumptions about them. Like nearly all other scholars, we unfortunately lack this information, since collecting these data is made infeasible by our type of survey and restrictions of time and money. Asking for the context in which people got to know each other, as we did, is in any case a step in the right direction.

3.2.3. Control variables

Because previous research (e.g., Marsden, 1987) showed that personal network composition is affected by personal (socio-economic) characteristics, and because of the sampling method used, in our final analyses we controlled for the following (personal) characteristics of the respondent: age, sex, marital (or cohabiting) status, level of education, having a paid job,

¹ We take the *negative* absolute difference, since the absolute difference would indicate dissimilarity between ego and alter.

² Using these similarity measures, we might suffer from what is sometimes called ‘floor and ceiling effects’. With respect to age similarity, however, we think this is hardly the case, since respondents are between 18 and 65 years old. With respect to educational similarity, it is true that people with a university degree only have the opportunity to choose alters with the same or a lower level of education, whereas for people in the lowest educational category the reverse is true. To a certain extent, however, we control for these ‘floor and ceiling effects’ by including age and level of education of the respondent as independent variables in the analyses (see Section 3.2.3).

Table 1
Where partners, friends, and acquaintances got to know each other

	Partner (N = 542)	Friends (N = 3167)	Acquaintances (N = 486)
In the neighborhood (%)	4.8	14.0	20.6
Via family (%)	5.0	6.0	5.1
At school (%)	7.8	13.2	2.3
At work (%)	11.6	17.8	23.1
At a club or association (%)	9.6	14.2	9.7
Via friends (%)	8.1	11.7	6.0
At a going-out place (%)	26.6	5.1	2.3
Other contexts ^a (%)	26.5	18.0	30.9
	100	100	100

Source: SSND1 (1999/2000).

^a That is, at church, at ego's place, at alter's place, on a vacation, at a party or elsewhere.

Table 2
Mean similarity per type of relationship (with standard deviations in parentheses)

Type of relationship	Similarity with regard to ...			
	Age ^a	Education ^b	Sex ^c	Religion ^d
Partnership	−4.066 (3.743)	−0.674 (0.773)	0.047 (0.213)	0.634 (0.482)
Friendship	−6.238 (6.905)	−0.638 (0.761)	0.737 (0.439)	0.590 (0.491)
Acquaintanceship	−9.172 (8.017)	−0.816 (0.806)	0.691 (0.462)	0.519 (0.500)

Source: SSND1 (1999/2000).

^a Negative absolute age difference between ego and alter.

^b Negative absolute difference between ego and alter with regard to their highest level of education completed. Based on variables with four categories: 'primary education—lower vocational education', '(lower) general secondary education—pre-university education', 'intermediate vocational education—higher vocational training', and 'university degree'.

^c Dummy-coded variable (0 = dissimilar, 1 = similar).

^d Dummy-coded variable (0 = dissimilar, 1 = similar), based on variables with four categories: 'no religion', 'Roman Catholic', 'protestant', and 'other religion'.

nationality,³ degree of urbanization of place of residence⁴, and religion.

3.3. Description of analyses

Section 4 presents the results of our statistical analyses.⁵ Table 1 shows where (i.e., in which social context) respondents got to know their partner,⁶ friends and acquaintances. Since our focus is on these three types of relationships, other kinds of relations are left out of the analyses. This means that personal relationships like family ties, co-worker relations and fellow club members are omitted, provided these network members were not also mentioned as a partner, a friend or an acquaintance. Table 2 shows how similarity (regarding age, level of education, sex and religion) between the respondents and their personal contacts varies across the three types of relationship.

In Table 3, we show the fit of various models that we estimated on the effect of social context, the effect of type of relationship, and interaction effects, on similarity in personal

relationships with regard to age, level of education, sex, and religion. We present likelihood-ratio chi-squares, respectively Wald chi-squares, with accompanying degrees of freedom in parentheses on these various models. Model 1 is the base model in which we controlled for several respondent characteristics (see previous subsection). In models 2 and 3, we added one of the two relationship attributes to the base model each time; type of relationship in model 2, and the social context in model 3. In model 4 we added both these attributes to the base model at the same time. Then, by adding interaction terms to this last model in models 5a through 5c, we tested whether the effects of social contexts on similarity in personal relationships varied among types of relationships. In model 5a, we included interaction terms between social contexts and partnerships, as well as between social contexts and acquaintanceships (friendships are the reference category). In model 5b, we just included interaction terms between social contexts and partnerships, in order to test whether the effects of social contexts on similarity is different for partnerships as compared to friendships and acquaintanceships. For a similar reason, we just included interaction terms between social contexts and acquaintanceships in model 5c. Finally, for each similarity measure, we underlined the model that fitted best, which means that adding (more specific) interaction terms did not improve the model significantly at the 5% level.

With regard to each of the four similarity measures, the model that fitted best is then presented in detail in Table 4. These models show multilevel linear regression coefficients on similarity in personal relationships with regard to age and level of education,

³ That is, being a native, a first-generation immigrant, or a second-generation immigrant.

⁴ Degree of urbanization is measured as the number of people living within a 15 min car drive from the respondent (calculations by M. van Ham, see: Van Ham, 2002; data are from Statistics Netherlands (see <http://www.cbs.nl/>)).

⁵ We used the statistical software package STATA®, release 9.

⁶ Irrespective of whether they are married, cohabiting, or girl/boyfriend, they were mentioned as 'partner' by the respondent concerned.

Table 3
Model fit of multilevel linear, respectively logistic, regression analyses on similarity in personal relationships with regard to age, level of education, sex, and religion

	Similarity with regard to . . .			
	Age	Education	Sex	Religion
	LR Chi2	LR Chi2	Wald Chi2	Wald Chi2
Model 1 = respondent characteristics	103.24*** (13)	112.52*** (13)	32.04** (13)	35.97*** (13)
Model 2 = model 1 + type of relationship	245.62*** (15)	130.11*** (15)	418.39*** (15)	46.14*** (15)
Model 3 = model 1 + social context	260.68*** (20)	194.83*** (20)	216.77*** (20)	55.08*** (20)
Model 4 = model 1 + type of relationship + social context	372.96*** (22)	<u>208.40*** (22)</u>	<u>460.33*** (22)</u>	<u>61.72*** (22)</u>
Model 5a = model 4 + type of relationship + social context + interaction terms on 'type of relationship' × 'social context'	388.99*** (36)	222.78*** (36)	471.59*** (36)	76.76*** (36)
Model 5b = model 4 + type of relationship + social context + interaction terms on 'partner' × 'social context'	<u>387.21*** (29)^a</u>	212.95*** (29)	467.64*** (29)	72.05*** (29)
Model 5c = model 4 + type of relationship + social context + interaction terms on 'acquaintance' × 'social context'	375.43*** (29)	218.91*** (29)	464.96*** (29)	66.97*** (29)
Number of egos	923	921	872	893
Number of alters	4101	4019	3589	3658

Source: SSND1 (1999/2000); * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Note that the best fitting models are underlined.

^a LR-test on model 5b versus model 4 = 14.25* (7).

and multilevel logistic regression coefficients on similarity with regard to sex and religious background. We used multilevel analysis techniques because of the hierarchical clustering structure of our data, i.e., personal relationships are nested 'within egos'.⁷ Some remarks are called for with respect to these analyses. First, using multilevel logistic regression analyses for similarity in sex and religion means that these models represent log odds ratios.⁸ Second, as mentioned in our discussion of the control variables, we controlled for several personal characteristics of the respondent. Third, the coefficients on the various social contexts in Table 3 show the effect of getting to know each other in a certain social context on similarity, with 'other context' as the reference category. This reference category consists of those who got to know each other at ego's place, at alter's place, at church, on a vacation, at a party, or elsewhere. Because of this mixed reference category, coefficients as presented are best evaluated relative to one another instead of simply relative to the reference category. Fourth, if not specified otherwise, when reporting 'significant' differences, we mean significant at the 5% level.

4. Results

4.1. Social contexts for meeting a partner, friends and acquaintances

Table 1 shows where respondents got to know their partner, friends and acquaintances. In general, different social contexts provide different types of relationships. More specifically, we see that whereas relatively few partners got to know each other in the neighborhood, this context is quite popular for getting to know new friends and acquaintances. The same can be said for the workplace, though in general relatively more relationships are formed at work than in the neighborhood. The opposite is true for going-out places, which are popular for getting to know a partner, whereas hardly any friendships and acquaintanceships are the result of going to a bar or other such establishment.

4.2. Similarity in personal relationships

Table 2 shows the extent to which similarity between the respondents and their personal contacts varies across the three types of relationships. Regarding age similarity, there are indeed substantial differences between partnerships, friendships and acquaintanceships. On average, partners differ in age by about 4 years, whereas the average age difference between ego and a friend is 6.2 years and between ego and an acquaintance more than 9 years. Partners and friends hardly differ in educational level, whereas acquaintances are more likely to differ from ego in level of education. Also from the table we see that, on the one hand, 95% of respondents are heterosexual. On the other hand, some 74% of friends are of the same sex as the respondent, and almost 70% of acquaintances are of the same

⁷ Specifically, we used the hierarchical linear model (HLM), which is an extension of the general linear model in which the probability model for the errors, or residuals, has a structure reflecting the hierarchical structure of the data (Snijders, 2003; Snijders and Bosker, 1999).

⁸ Defined by $\text{logit}(p) = \ln(p/1-p)$, where $\ln(x)$ denotes the natural logarithm of the number x . The range of the log odds ratio is from minus infinity to plus infinity (Snijders and Bosker, 1999, pp. 211–212). For example, the third column of Table 4 on sex similarity shows a coefficient estimate of 0.998 for the main effect of getting to know each other 'at school'. This means that getting to know each other 'at school' is associated with an increase of 0.998 in the log odds ratio, or equivalently, a ratio of $\exp^{0.998} = 2.71$ in the odds ratio for sex similarity in personal relationships.

Table 4

Multilevel linear regression coefficients for similarity in personal relationships with regard to age and level of education, and multilevel logistic regression coefficients (log odds ratios) for similarity with regard to sex and religion^a (unstandardized coefficients, with standard deviations in parentheses)

	Similarity with regard to . . .			
	Age ^b	Education ^c	Sex ^d	Religion ^e
Type of relationship				
Partnership	3.297 (0.578)***	0.005 (0.034)	−4.249 (0.220)***	0.122 (0.149)
Friendship ^f	Ref.	Ref.	Ref.	Ref.
Acquaintanceship	−2.390 (0.334)***	−0.139 (0.038)***	−0.263 (0.119)*	−0.444 (0.187)*
Social context				
In the neighborhood	0.918 (0.376)*	−0.001 (0.041)	0.258 (0.138) [†]	−0.446 (0.185)*
Via family	−0.953 (0.510) [†]	0.069 (0.053)	−0.068 (0.180)	0.175 (0.236)
At school	4.073 (0.406)***	0.295 (0.043)***	0.998 (0.168)***	−0.177 (0.189)
At work	0.556 (0.355)	0.210 (0.037)***	0.285 (0.129)*	−0.343 (0.170)*
At a club or association	1.755 (0.395)***	0.026 (0.042)	0.382 (0.145)**	0.029 (0.189)
Via friends	1.405 (0.416)***	0.049 (0.044)	−0.243 (0.145) [†]	−0.135 (0.199)
At a going-out place	2.499 (0.563)***	0.057 (0.050)	−0.506 (0.188)**	0.280 (0.235)
In another context ^g	Ref.	Ref.	Ref.	Ref.
Interaction effects				
Partner* in the neighborhood	0.138 (1.419)			
Partner* via family	0.012 (1.421)			
Partner* at school	−3.313 (1.169)**			
Partner* at work	−1.196 (1.018)			
Partner* at a club or association	−1.794 (1.092)			
Partner* via friends	−1.727 (1.173)			
Partner* at a going-out place	−2.485 (0.928)**			
Constant	−7.289 (0.591)***	−0.865 (0.069)***	0.697 (0.200)***	0.324 (0.375)
Number of egos	923	921	872	893
Number of alters	4101	4019	3589	3658

Source: SSND1 (1999/2000); [†] $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

^a In each model we controlled for the effects of ego's age, sex, level of education, marital status, having a paid job, nationality, degree of urbanization of place of residence and religious background.

^b Age similarity is measured as the negative absolute age difference between ego and alter.

^c Educational similarity is measured as the negative absolute difference between ego and alter with regard to their highest level of education completed. Based on variables with four categories: 'primary education—lower vocational education', '(lower) general secondary education—pre-university education', 'intermediate vocational education—higher vocational training', and 'university degree'.

^d Sex similarity is a dummy-coded variable (0 = dissimilar, 1 = similar).

^e Religious similarity is a dummy-coded variable (0 = dissimilar, 1 = similar).

^f Friendships make up the reference category, which means that other relationships, like family ties and co-worker relationships, provided that they are not also mentioned as partner, friend or acquaintance, are left out of the analyses.

^g Other contexts are: at ego's place, at alter's place, at church, on a vacation, at a party and elsewhere.

sex as the respondent. Similarity in religion is found somewhat more often for friendships than for acquaintanceships, and most often for partnerships. Lastly, the general decrease in standard deviations with increasing strength of relationships already confirms our assumption that weaker preferences leave more room for other effects (e.g., that of meeting context) on similarity.

4.3. Social contexts affecting similarity in personal relationships

Table 3 presents the fit of various models on the effects of social contexts, types of relationships, and interactions between these relationship attributes, on similarity in personal relationships with regard to age, level of education, sex, and religion. It shows that both, the type of relationship (model 2) and the social context in which people get to know each other (model 3),

substantially affect similarity in personal relationships. Moreover, including both attributes in one model (model 4) provides a significant better model fit as compared to including none or just one of these attributes to the model in which we also control for relevant respondent characteristics. Adding interaction terms for two of the three types of relationships (for the remaining type is the reference category) and social contexts, however, did not improve any of the models significantly. Only with regard to age similarity, adding interaction terms between partnership and social contexts resulted in a better model. This means that the effect of social contexts on age similarity is different for partnerships as compared to friendships and acquaintanceships. The effects of social contexts on similarity with regard to level of education, sex, and religion, are stable across types of relationships: there are no statistical different effects of social contexts for partnerships, friendships, and acquaintanceships.

In Table 4, we present the models with the best fit in detail.⁹ The first column relates to age similarity in personal relationships. First, controlling for social context, we find that a partner is generally more similar in age to the respondent than are friends (by 3.3 years), and that friends are more similar in age than are acquaintances (by 2.4 years). Second, since only interaction effects between partnerships and social contexts are included in this model, and not between friendships/acquaintanceships and social contexts, the main effects of social contexts show how the context in which friends and acquaintances got to know each other affects age similarity in the resulting relationship. On the one hand, friends and acquaintances who got to know each other at school are relatively most similar to ego in terms of age, followed by those who got to know the respondent at a going-out place. Next, although to a lower extent, friends and acquaintances who got to know each other at a club or association, via a friend or in the neighborhood are also more similar with regard to age than those who got to know each other in another context (the reference category). On the other hand, friends and acquaintances who got to know each other via the family are least similar in age. The interaction terms for partnerships and social contexts show that the effect of getting to know each other at school or at a going-out place on similarity is significantly smaller for partnerships than for friendships and acquaintanceships. This means that age similarity between partners is hardly affected by the social context in which they get to know each other.

The second column relates to similarity in the highest level of education completed. First, controlling for social context, we find that acquaintances are a little less similar to the respondent in level of education than are partners and friends.¹⁰ Second, compared to other contexts, schools and workplaces provide personal network members who are relatively most similar in terms of education. The finding that interaction effects for types of relationships and social contexts did not improve this model (see Table 3), means that these effects of social contexts on educational similarity apply to all three types of relationships.

The model on sex similarity in personal relationships (third column) first shows that, controlling for social contexts, sex similarity is very unlikely for partnerships, but also significantly less likely for acquaintanceships than for friendships. Second, most likely to be of the same sex as the respondent are personal network members who got to know each other at school¹¹ (odds ratio: 2.71), followed by those who got to know each other at a club or association (odds ratio: 1.46) and in the

neighborhood¹² (odds ratio: 1.32). Most likely to be of the opposite sex are personal network members who got to know each other at a going-out place (odds ratio: 0.60). Also with regard to sex similarity, the finding that interaction effects for types of relationships and social contexts did not improve this model (see Table 3), means that these effects of social contexts on sex similarity apply to all three types of relationships.

The fourth column concerns religious similarity in personal relationships. First, whereas partnerships and friendships do not significantly differ in this respect, acquaintances are relatively less similar to the respondent with regard to religion.¹³ Second, compared to other social contexts, religious similarity is somewhat less likely for personal network members who got to know the respondent at work (odds ratio: 0.70), or in the neighborhood (odds ratio: 0.64). Also with regard to religious similarity, the finding that interaction effects for types of relationships and social contexts did not improve this model (Table 3), means that these effects of social contexts on religious similarity apply to all three types of relationships.

5. Conclusions and discussion

This study builds upon and confirms earlier research findings that similarity in personal relationships is affected by the social context in which people encounter one another (e.g., Marsden, 1990; McPherson et al., 2001; Kalmijn and Flap, 2001; Mollenhorst et al., *in press*). Comparing these previous findings among themselves, one runs up against a number of divergent results (for specifications, see Mollenhorst et al., *in press*). There are several possible explanations for the differences. One is the different method that researchers use to delineate personal networks. Another is their different means of measuring contexts: for example, by type of role relation (Marsden, 1990), by shared settings (Kalmijn and Flap, 2001), and by context in which they got to know each other (Mollenhorst et al., *in press*). These differences indicate a need for caution in generalizing effects found with respect to one type of relationship to other types of relationships (for an overview of differences in similarity, or ‘homophily’, between various types of relationships, see McPherson et al., 2001).

In this study, we inquired into the differential effect of social contexts on various types of social relationships. New insights provided by this study, therefore, relate to differences between partnerships, friendships, and acquaintanceships in the effect of getting to know each other in various social contexts (i.e., meeting opportunities) on similarity in these types of personal relationships with regard to age, level of educational, sex, and religious background. We hypothesized that the stimulating or

⁹ Our discussion under ‘measurements’ provides several important notes with respect to these analyses.

¹⁰ By controlling for ego’s level of education in the analyses, we found that educational similarity is more likely, the higher one’s level of education.

¹¹ As previously reported (Mollenhorst et al., *in press*), the positive association with getting to know each other at school suggests that it is not the social composition of this context that stimulates sex similarity. It is, however, in line with the traditional finding in research on friendships in school that friendships among students are disproportionately same-sex relationships (e.g., Leenders, 1996).

¹² As also reported previously (Mollenhorst et al., *in press*), the positive effect of neighborhoods on sex similarity might be a result of a difference in sex compositions of neighborhoods between night and day, such that unemployed women mainly meet other women in the neighborhood during daytime.

¹³ By controlling for ego’s religion, we found that religious similarity is more likely for Roman Catholics (log odds = 1.094, S.D. = 0.250). Protestants and people with another kind of religion do not differ in this respect from non-religious people.

constraining effect of social context on similarity in personal relationships is larger for friendships than for partnerships and larger for acquaintanceships than for friendships. This hypothesis is based on the assumption that preferences weigh less heavily in choosing with whom to have a casual talk than in the choice of someone with whom to share important personal matters. Empirical findings presented in this paper partly confirm our hypothesis: the effect of social context on age similarity in personal relationships is larger for friendships and acquaintanceships as compared to partnerships. Whereas various social contexts have varying effects on age similarity in friendships and acquaintanceships, not all of these social contexts affect age similarity in partnerships. In particular, the strong positive effects of getting to know each other at school and at going-out places on age similarity, do not apply to partnerships. For similarity with regard to level of education, sex, and religion, however, goes that social contexts do not affect similarity differently across partnerships, friendships, and acquaintanceships.

A number of other, more specific, conclusions can be drawn from our empirical research. First, the finding that age similarity between partners is hardly affected by the context in which they got to know each other is remarkable in light of the study by Kalmijn and Flap (2001) on marriage choices. They found that the type of setting couples had in common before they married affected not only educational and religious endogamy, but also age endogamy. This difference underlines the importance of looking closely at how the effect of meeting context is measured.¹⁴ Second, we did not find a larger effect of social context for acquaintanceships as compared to friendships on any of the four similarity dimensions. This is possibly a result of the way respondents were asked about the type of relationship between themselves and their alters. ‘Acquaintance’ was the last answer category offered by our survey, perhaps leading respondents to label an alter as an acquaintance only because they did not fit into either of the preceding categories. In actuality, ‘acquaintances’ might just be a small group of varied remainders. Third, we found a negative effect (at the 10% level of significance) of getting to know each other via family on age similarity in personal relationships. This indicates that the ‘integrating function’ of the family context with regard to age similarity in personal networks is not due only to the simple fact that in this context, people meet relatives who are of another generation (cf. e.g., Fischer, 1982; Coleman, 1990), but that also other types of personal relationships (like partnerships, friendships, and acquaintanceships) which emerge in the family context are relatively dissimilar in age. Fourth, we found that sex similarity in personal relationships is most unlikely for people who got to know each other at a going-out place. This effect is partly due to the substantial part of partners who got to know each other at a going-out place (more than one out of every four).

Notwithstanding this, the negative effect of going-out places on sex similarity applies to all three types of relationships, indicating that going-out places, relative to other social contexts, are especially suited for starting personal relationships with others of the opposite sex.

We assumed that people’s preference for similar others figures more prominently in their choice for intimate relationships than in more superficial associations. And indeed, we generally found most similarity between partners, and least between acquaintances. Notwithstanding this, the context in which associates got to know each other turned out to affect similarity consistently across types of relationships. This means that people use other ways to exert their preference for certain types of associates. One way could be that people select personal network members from multiple contexts in order to find associates who match their preferences. They might also choose social contexts with an eye to the ‘pool’ of people they will meet there. Alternatively, people might search more thoroughly or longer within a certain context to find a person who matches their preferences, if they are looking for an associate to start a strong relationship with. These are relevant questions for future research.

To summarize, this study again reveals that people’s personal networks reflect the social composition of the contexts in which they find themselves. More importantly, although intimate associates are generally more similar to each other on socio-demographic dimensions than are more superficial associates, social contexts predominantly affect the level of similarity across different types of personal relationships consistently. This strongly supports the argument that meeting opportunities have a robust effect on the social composition of people’s personal networks.

Appendix A. Name-generating questions

1. Who helped you find your current/last job? (one person maximum)
2. If you have a problem at work, who do you ask for advice? (in addition to already named person, five new persons at maximum)
3. Are there people who come to you for advice when they have problems at work? (in addition to already named people, five new persons at maximum)
4. At work people do not always cooperate, sometimes they make trouble for each other. How is that with you? Which colleague makes trouble for you or has made trouble for you lately? (in addition to already named people, five new persons at maximum)
5. Who are the two colleagues with whom you interact most? (two persons or alternatively already named at maximum)
6. Who is your boss? (two persons or alternatively already named at maximum)
7. Who helped you get your house or from whom did you directly buy it? (one person or alternatively already named at maximum)
8. If you are doing a job at home and need someone to help, e.g., to carry furniture or hold a ladder, who do you

¹⁴ On the one hand, their (Kalmijn and Flap, 2001) measure of interaction opportunities may be better than ours, because associates may share more than one setting (e.g., school and a sports club). A disadvantage of their measure is that couples who share a setting not always got to know their partner in that setting (e.g., they knew each other already for a long time as classmates, and much later they became co-members of the same sports club).

- ask? (in addition to already named, five new persons at maximum)
9. Is there anyone, besides household members, who has a key to your house? (in addition to already named people, five new persons at maximum)
 10. Who are your direct neighbors? Which are the neighbors who live most nearby you (the people in the house to the left, the right, above and below your house)? (two persons or alternatively already named at maximum)
 11. Many people visit others in their leisure time. Who do you visit? (in addition to already named people, five new persons at maximum)
 12. Life is not only about going out and having fun. Everybody needs someone to discuss important things with sometimes. With whom have you discussed important personal matters during the past 6 months? (in addition to already named people, five new persons at maximum)
 13. If we look at the list of names we have gathered, is there anyone who is important to you but not on this list? (in addition to already named people, five new persons at maximum)

References

- Blau, P.M., 1977. *Inequality and Heterogeneity*. The Free Press, New York.
- Blau, P.M., Blum, T.C., Schwartz, J.E., 1982. Heterogeneity and intermarriage. *American Sociological Review* 47, 45–63.
- Blau, P.M., Schwartz, J.E., 1984. *Crosscutting Social Circles: Testing a Macrostructural Theory of Intergroup Relations*. Academic Press, Orlando.
- Coleman, J.S., 1990. *Foundations of Social Theory*. Harvard University Press, Cambridge, MA.
- Duck, S.W., 1991. *Friends for Life: The Psychology of Personal Relationships*, second (revised) ed. Harvester, New York.
- Feld, S.L., 1981. The focused organization of social ties. *American Journal of Sociology* 86, 1015–1035.
- Feld, S.L., Carter, W.C., 1998. Foci of activity as changing contexts for friendship. In: Adams, R.G., Allan, G. (Eds.), *Placing Friendship in Context*. University Press, Cambridge.
- Fischer, C.S., 1982. *To Dwell Among Friends: Personal Networks in Town and City*. University of Chicago Press, Chicago.
- Fischer, C.S., Jackson, R.M., Stueve, C.A., Gerson, K., McCallister Jones, L., Baldassare, M., 1977. *Networks and Places. Social Relations in the Urban Setting*. Free Press, New York.
- Flap, H., Bulder, B., Völker, B., 1998. Intra-organizational networks and performance. *Computational and Mathematical Organization Theory* 4, 109–147.
- Homans, G.C., 1950. *The Human Group*. Harcourt, Brace and Company, New York.
- Huckfeldt, R.R., 1983. Social contexts, social networks, and urban neighborhoods: environmental constraints on friendship choice. *American Journal of Sociology* 89 (3), 651–669.
- Kalmijn, M., 1998. Intermarriage and homogamy: causes, patterns, trends. *Annual Review of Sociology* 24, 395–421.
- Kalmijn, M., 2002. Sex segregation of friendship networks: individual and structural determinants of having cross-sex friends. *European Sociological Review* 18, 101–118.
- Kalmijn, M., Flap, H., 2001. Assortative meeting and mating: unintended consequences of organized settings for partner choices. *Social Forces* 79, 1289–1313.
- Laumann, E.O., 1966. *Prestige and Association in an Urban Community*. Bobbs-Merrill, Indianapolis.
- Laumann, E.O., Gagnon F.J.H., Michael, R.T., Michaels, S., 1994. *The Social Organization of Sexuality: Sexual Practices in the United States*. University of Chicago Press.
- Lazarsfeld, P.F., Merton, R.K., 1954. Friendship as a social process: a substantive and methodological analysis. In: Kendall, P.L. (Ed.), *The Varied Sociology of Paul F. Lazarsfeld*. Columbia University Press, New York.
- Leenders, R.Th.A.J., 1996. Evolution of friendship and best friendship choices. *Journal of Mathematical Sociology* 21, 133–148.
- Marsden, P.V., 1987. Core discussion networks of Americans. *American Sociological Review* 52, 122–131.
- Marsden, P.V., 1990. Network diversity, substructures, and opportunities for contact. In: Calhoun, C., Meyer, M.W., Scott, W.R. (Eds.), *Structures of Power and Constraint. Papers in Honor of Peter M. Blau*, Cambridge University Press, New York.
- McPherson, J.M., Smith-Lovin, L., 1987. Homophily in voluntary organizations: status distance and the composition of face-to-face groups. *American Sociological Review* 52, 370–379.
- McPherson, M., Smith-Lovin, L., Cook, J.M., 2001. Birds of a feather: homophily in social networks. *Annual Review of Sociology* 27, 415–444.
- Mollenhorst, G., Völker, B., Flap, H., in press. Social contexts and core discussion networks. Using a choice-constraint approach to study similarity in intimate personal relationships. *Social Forces*.
- Newcomb, T.M., 1961. *The Acquaintance Process*. Holt, Rinehard & Winston, New York.
- Snijders, T.A.B., 2003. Multilevel analysis. In: Lewis-Beck, M., Bryman, A.E., Liao, T.F. (Eds.), *The SAGE Encyclopedia of Social Science Research Methods*, vol. II. SAGE Publications, London.
- Snijders, T.A.B., Bosker, R.J., 1999. *Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modelling*. SAGE Publications, London.
- Van der Gaag, M., 2005. *Measurements of Individual Social Capital*. F&N Boekservices, Amsterdam.
- Van Ham, M., 2002. Job Access. In: *Workplace Mobility and Occupational Achievement*. Eburon, Delft.
- Verbrugge, L.M., 1977. The structure of adult friendship choices. *Social Forces* 56 (2), 576–597.
- Völker, B., Flap, H., 1997. The comrade's belief: Intended and unintended consequences of communism for neighborhood relations in the former GDR. *European Sociological Review* 13, 241–265.
- Völker, B., Flap, H., 2002. *The Survey of the Social Networks of the Dutch (SSND1): Data and Codebook*. Utrecht University/ICS.